Restricted Circulation

This paper is not an official document; it is for information only and reference cannot be made to it in any printed publication without the permission of the author.

Agricultural Memorandum No 497

Formulae for loss in yields due to late sowing

Area 1

L P Smith

Area 1 is the area of high sensitivity to reduction in schedules (Ag Mem 490).

If x_1 is the drainage factor where

Good drainage = 1
Moderate drainage = 1.4
Poor drainage = 2.2
Bad drainage = 3.0

and y is the number of days in the schedule; then the loss percentages in yield are:-

		Correlation x_1y: data
Sandringham	$0.64\ x_1y - 3.4$	0.991
Sprowston	$0.62\ x_1y - 3.9$	0.995
Cranwell	$0.53\ x_1y - 1.7$	0.989
Melton Mowbray	$0.47\ x_1y - 1.5$	0.992
Maidstone	$0.46\ x_1y - 2.0$	0.995
Holme	$0.43\ x_1y - 1.7$	0.991
Bishops Cannings	$0.47\ x_1y - 0.6$	0.987
Newport	$0.42\ x_1y - 1.0$	0.978
Andover	$0.38\ x_1y - 0.8$	0.978

Example If near Cranwell, the drainage was poor and the schedule 14 days then the loss would be

$$0.53 \times 2.2 \times 14 - 1.7 = 16.3 - 1.7 = 14.6\%$$

Changing this to moderate drainage and a 10 day schedule the loss becomes

$$0.53 \times 1.4 \times 10 - 1.7 = 7.4 - 1.7 = 5.7\%$$

a gain of about 9 per cent of total yield.

Any comments or suggestions on this paper should be referred to the author.

Meteorological Office
Bracknell

August 1972